Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

Claims 1-9 (Canceled)

Claim 10 (currently amended) A modular hip joint implant for insertion into a femur adjacent a hip joint including a male/female junction, the implant comprising:

a proximal body component having a top end <u>for engaging the hip joint</u>, a bottom end <u>for insertion into the femur</u>, a medial <u>side aspect</u>, and a lateral <u>side aspect</u>, a neck formed adjacent the top end and a bore formed into the bottom end, the bore having a bore opening and an interior surface forming a female side of <u>a</u> the male/female junction, the bore having a longitudinal junction axis;

a stem component having a first end for engaging the proximal body component and a second end for insertion into the femur, and a projection formed adjacent the first end, the projection having an exterior surface forming a male side of the male/female junction, the projection being engageable with the bore in male/female seating arrangement along the junction axis, the male and female sides contacting one another adjacent the bore opening, the contact between the male and female sides adjacent to the bore opening on bore opening having a portion adjacent the lateral side being aspect that is offset longitudinally axially toward the top end relative to a portion of the contact between the male and female sides adjacent the bore opening adjacent on the medial side aspect such

that the male/female junction contact at the first portion is shifted longitudinally

along the junction axis relative to the second portion.

11. (original) The implant of claim 10 wherein the bore and the projection form complimentary

tapers, the tapers narrowing from the bottom end toward the top end and from the second end

toward the first end.

12. (currently amended) The implant of claim 10 11 wherein the proximal body component has

an exterior surface spaced from the interior surface of the bore, the exterior and interior surfaces

defining a wall between them, the wall having a wall thickness that increases over a portion of

the wall between the bottom second end and the top first end as the bore taper diverges inwardly

from the exterior wall in a direction generally parallel to the junction axis such that the contact

between the male and female sides adjacent the bore opening on the lateral side the first portion-

of the bore opening is offset axially in the direction of increasing wall thickness.

13. (original) The implant of claim 10 further comprising a femoral head component supported

on the neck of the proximal body component and an acetabular component engageable with the

femoral head component.

14. (currently amended) A modular joint implant including a male/female junction having a side

that is predominately in compression in use and a side that is predominately in tension in use, the

implant comprising:

a first component including a bore having a bore opening and an interior surface forming

a female side of the male/female junction, the bore having a longitudinal junction

axis, the first component having an exterior surface, the interior and exterior

surfaces defining a wall between them, the wall having a wall thickness, the wall-

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thickness on the tensile side of the implant being greater than the wall thickness on the compressive side of the implant;

a second component including a projection having an exterior surface forming a male side
of the male/female junction, the projection being engageable with the bore in
male/female seating arrangement along the junction axis, the male and female
sides contacting one another adjacent the bore opening, the wall thickness
adjacent the contact at the bore opening being greater on the tensile side of the
implant than on the compressive side of the implant.

15. (canceled)

- 16. (new) The implant of claim 10 wherein the bore opening is transverse to the junction axis.
- 17. (new) The implant of claim 10 wherein the implant further includes a joint load receiving

head and further wherein the medial side is generally in compression in use and the lateral side is

generally in tension in use such that the contact between the male and female sides adjacent the

bore opening is offset longitudinally toward the top end on the tensile side of the implant.

18. (new) The implant of claim 10 wherein the proximal body component has an exterior surface

spaced from the interior surface of the bore, the exterior and interior surfaces defining a wall

between them, the wall having a stiffness that increases over a portion of the wall between the

bottom end and the top end in a direction generally parallel to the junction axis, the projection

further having a stiffness, such that the contact between the male and female sides adjacent to the

bore opening on the lateral side is offset in the direction of increasing wall stiffness.

19. (new) The implant of claim 10 wherein the bore opening adjacent the lateral side is offset

radially away from the projection.